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09491032 BA

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Doc Code: Computer

pages of specification

and/or sequence listing

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Doc Code: Artifact

content unspecified or combined

Doc Code: Artifact

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Stapled Set(s) Color Documents or B/W Photographs

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The United States of America



Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

T. Todd Tschumi

Acting Commissioner of Patents and Trademarks

Pandra Morton
Attest

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US005936660A

United States Patent [19]

Gurantz

[11] Patent Number: 5,936,660
[45] Date of Patent: Aug. 10, 1999

[54] DIGITAL VIDEO CONVERTER BOX FOR SUBSCRIBER/HOME WITH MULTIPLE TELEVISION SETS

[75] Inventor: Itzhak Gurantz, San Diego, Calif.
[73] Assignee: Rockwell Semiconductor System, Inc., Newport Beach, Calif.

[21] Appl. No.: 08/988,548
[22] Filed: Dec. 10, 1997

Related U.S. Application Data

[60] Provisional application No. 60/033,059, Dec. 12, 1996.
[51] Int. Cl.⁶ H04N 7/10
[52] U.S. Cl. 348/10; 348/734; 348/6; 348/12
[58] Field of Search 348/734, 8, 10, 348/7, 12, 6, 13; 455/4.1, 5.1, 6.1, 6.3, 3.1; 345/327; H04N 5/00, 7/173, 5/44, 7/10

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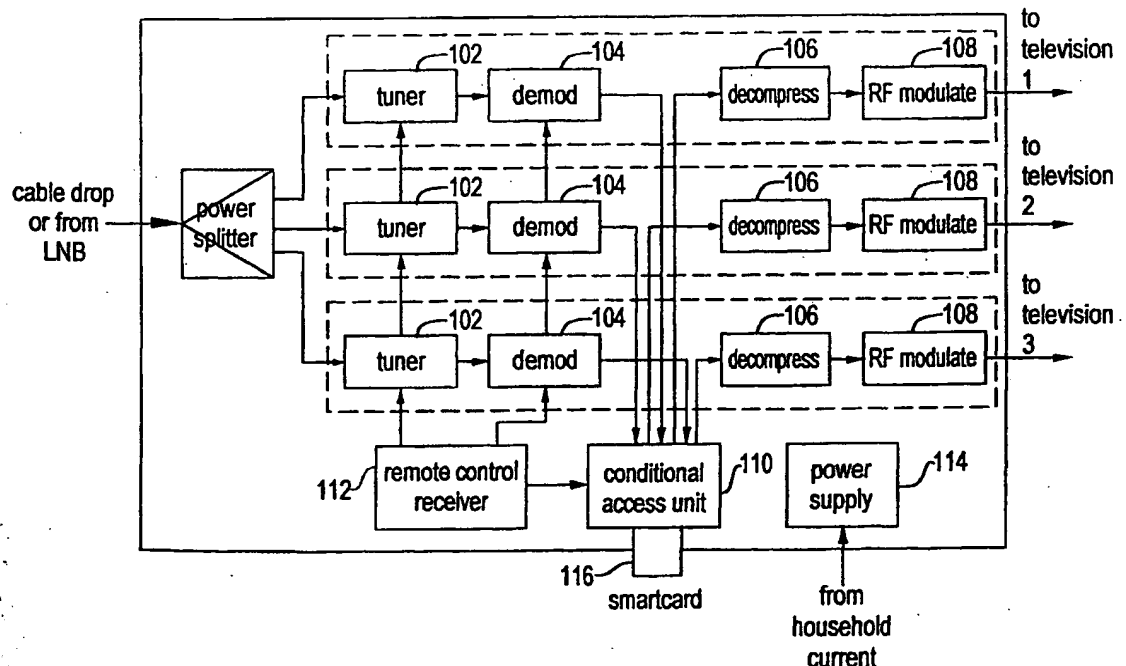
Primary Examiner—Nathan Flynn

Attorney, Agent, or Firm—Bromberg & Sunstein LLP

[57] ABSTRACT

A digital video conversion system housing multiple converter chains of units in a single main box chassis. A preferred embodiment uses only a single conditional access unit to authorize decryption of premium channels in response to a smartcard. The conversion system allows a single converter box sharing consolidated decryption (access control) circuitry and a single remote control receiver to provide video output for multiple television sets on the subscriber's premises. In addition to reducing the subscriber's hardware costs per television set, a common access control allows the video service provider to grant a multiple-set discount on a single smartcard.

21 Claims, 2 Drawing Sheets



AVAILABLE COPY Household Converter Block Diagram